

STAFF REPORT

on

# **Triennial Review of the Water Quality Control Plan for the Lahontan Region**

California Regional Water Quality Control Board  
Lahontan Region  
2501 Lake Tahoe Boulevard  
South Lake Tahoe CA 96150

**July 2009**

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## **Introduction**

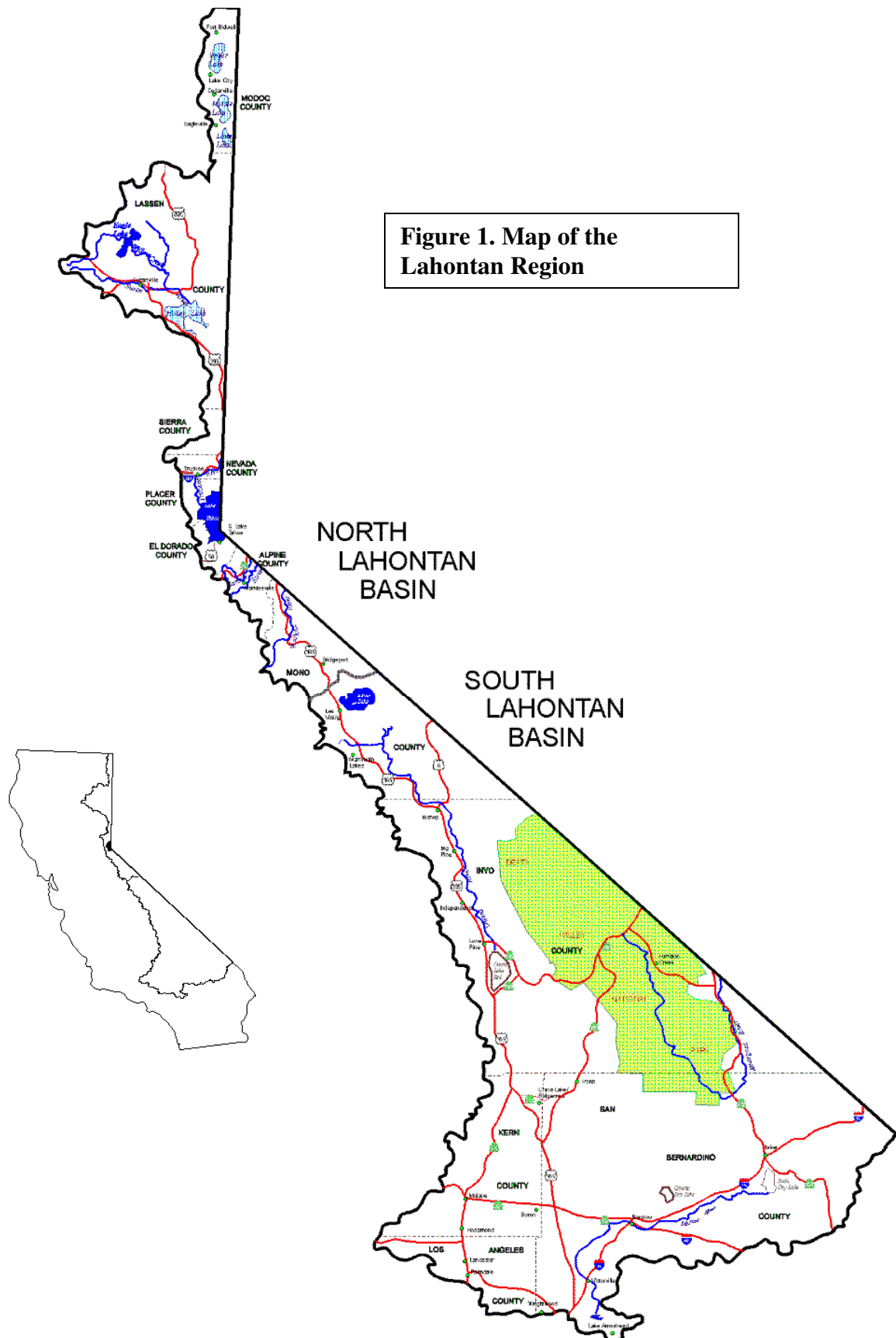
The California Regional Water Quality Control Board, Lahontan Region (Water Board) is the state agency responsible for setting and implementing water quality standards in about 20 % of California east of the Sierra Nevada crest and in the Northern Mojave Desert (Figure 1). Water quality standards and control measures are contained in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The current Basin Plan took effect in 1995, replacing three earlier plans. As of July 2009, ten sets of amendments to the 1995 plan have received all necessary approvals. The Basin Plan is available on the Water Board's Internet web page at: <http://www.waterboards.ca.gov/lahontan>.

State and federal laws require periodic review and revision of Basin Plans; the federal process is called "Triennial Review." Some states revise water quality standards as part of the Triennial Review process. Due to resource limitations and the complexity of California's plan amendment process, Triennial Review in California is generally limited to identification of high priority planning topics to be addressed over the three years between one Triennial Review cycle and the next. Unless it actually involves adoption of plan amendments, Triennial Review is not a regulatory action and does not require environmental analysis under the California Environmental Quality Act. The Water Board's current Triennial Review priorities were adopted in October 2006.

A public hearing for Triennial Review is tentatively scheduled for the Water Board's October 14 and 15, 2009 regular meeting. This staff report provides information on the Triennial Review process and on planning topics identified by Water Board staff. Additional topics may be identified in written public comments or testimony at the hearing. Water Board staff will make final recommendations regarding priority planning topics following the public hearing. The Water Board will be asked to approve a "short list" of topics to be addressed over the following three fiscal years, and to identify the remaining topics as topics requiring additional funding. The review process does not necessarily mean that specific revisions will be made to the Basin Plan, but after investigation by Water Board staff, the identified topics may result in plan amendments.

## **Water Quality Standards**

In California, water quality standards include designated beneficial uses of water, narrative and numerical water quality objectives, and a nondegradation policy. Water quality objectives are similar to federal "water quality criteria," but objectives are regulatory and criteria are not. Water quality standards in the Lahontan Basin plan are set forth in Basin Plan Chapters 2, 3, and 5. The plan's beneficial use tables (Tables 2-1 and 2-2) do not distinguish between existing and potential beneficial uses. Most of the numerical objectives are based on historical water quality data collected before adoption of



the 1975 North and South Lahontan Basin Plans, and reflect antidegradation considerations rather than numeric criteria for the protection of specific beneficial uses. Unless criteria for variances to objectives are specifically included in the Basin Plan, variances or exceptions cannot be granted without Basin Plan amendments to revise the objectives.

Applicable water quality standards also include numerical limits for toxic “priority pollutants” promulgated as surface water standards by the U.S. Environmental Protection Agency (USEPA) under the National Toxics Rule and California Toxics Rule. These standards have not yet been physically incorporated into the Basin Plan.

All of the waters of the Lahontan Region are internally drained, and many of them are isolated. The U.S. Army Corps of Engineers has determined that some waters within the Lahontan Region are not “waters of the United States” under the federal Clean Water Act. State standards still apply to any “waters of the State” that are determined not to be waters of the United States.

### **Triennial Review Process and Public Participation**

The Water Board’s 2009 Triennial Review Process will involve:

- Sending staff’s draft topics list and the hearing notice to the Water Board’s Basin Plan mailing list and to an electronic mailing list for Triennial Review.
- Making copies of the hearing notice, topics list, and this staff report available on the Water Board’s webpage.
- Providing a 45-day public review period for the topics list and the opportunity to submit other topics and written comments.
- Preparing written responses to written public comments. All comments and responses will be provided to the Water Board before the hearing.
- Testimony at the public hearing.
- Water Board adoption of a resolution identifying priority planning topics to be addressed by staff and topics requiring additional funding, and affirming the adequacy of the remainder of the plan.
- Completion and submission of the administrative record of the Triennial Review process to the State Water Resources Control Board (State Water Board). The State Water Board will make the approved Triennial Review, including the resolution and priority list, available to the USEPA.

## Basin Plan Amendment Process

The Basin Plan amendment process is summarized in Table 1, adapted from the State Water Board's planning guidance. As the table indicates, the process is lengthy and complex. (The table does not include the revisions that may need to be made in preliminary drafts in response to comments by internal reviewers, and in response to scientific peer review.) Chronologically, the process can require six months to more than a year between the end of the "research" period in Step A. and Water Board action, and nine months or more can be required after Water Board action for the amendments to receive all needed approvals. "Research" for Basin Plan amendments can include scientific literature review and/or water quality monitoring or special studies. Scientific peer review is required for amendments involving scientific judgment, and the reviewer's comments may result in significant changes to preliminary draft amendments before they are released for public review. Following Water Board adoption, amendments must be approved by the State Water Board, the California Office of Administrative Law (OAL), and (in some cases) the USEPA. To facilitate the OAL review process, a detailed administrative record must be prepared and indexed.

## Planning Considerations

***Budget.*** The Water Board's planning resources are extremely limited. Due to the Governor's Executive Order on furloughs, projected total available resources for the next three years are about 5.7 personnel years (PY), including both administrative and technical staff time. Some Basin Plan amendments may also require contracted studies for data collection (e.g., special monitoring studies to facilitate update of water quality objectives) or predictive modeling.

***Topics needing additional funding.*** The State Water Board's guidance for the Triennial Review process asks Regional Water Boards to identify planning topics that would require additional funding to address. The Lahontan Water Board will be asked to choose a small subset of the planning topics identified by staff and the public for emphasis over the next three years; ideally the total estimated cost of the selected topics should not exceed the resources expected to be available within that time. All of the remaining topics will be identified as topics requiring additional funding in order to be addressed during the next three years.

**Table 1 Summary of Basin Plan Amendment Process**

WHO...	DOES WHAT?
<b>REGIONAL OR STATE WATER BOARD</b>	<p>A. IDENTIFY THE NEED for a Plan amendment based on the triennial review, public concerns, new or revised laws, regulations or policies, etc. Undertake work to develop solutions - research, field work (e.g. collect chemical, physical, and/or biological monitoring data; data analysis), etc.</p> <p>B. PLAN the Administrative Record for the amendment.</p> <p>C. PREPARE NECESSARY DOCUMENTS  <b>STAFF REPORT</b> on the proposed amendment; reasonable alternatives, mitigation, economic considerations, and anti-degradation as required <ul style="list-style-type: none"> <li>• If addressing beneficial uses</li> <li>• If addressing water quality objectives</li> <li>• If addressing an implementation plan</li> </ul> <b>THE CEQA CHECKLIST</b>  <b>DRAFT AMENDMENT</b>  <b>DRAFT RESOLUTION</b></p> <p>D. EXTERNAL SCIENTIFIC PEER REVIEW</p> <p>E. PUBLISH A HEARING NOTICE / NOTICE OF FILING at least 45 days prior to the hearing</p> <p>F. RESPOND to comments – revising the draft amendment and staff report as necessary</p> <p>G. ADOPTION HEARING</p> <p>H. REGIONAL WATER BOARD TRANSMIT 2 copies of the complete administrative record to the State Water Board; and PARTICIPATE in State Water Board Workshop and Board Meeting</p>
<b>STATE WATER BOARD</b>	<p>I. APPROVE AMENDMENT at a public meeting (or return it to the Regional Water Board for further consideration)</p> <p>J. TRANSMIT approved amendment to OAL for review and approval of the regulatory provisions</p> <p>K. TRANSMIT the OAL approved amendment to USEPA, if needed, for review and approval of surface waters standards and their implementing provisions</p>
<b>REGIONAL WATER BOARD</b>	<p>L. (1) FILE CEQA NOTICE OF DECISION with the Secretary for Natural Resources after final approval by OAL or USEPA. (2) Either pay Department of Fish and Game filing fee or submit Certificate of Fee Exemption.</p> <p>M. PRINT and DISTRIBUTE Amendment</p>

***Total Maximum Daily Loads (TMDLs).*** The federal Clean Water Act requires states to identify surface water bodies that are not meeting standards due to pollutants (the “Section 303(d) list”), and to prepare strategies called TMDLs to ensure attainment of standards. In California, TMDLs and TMDL implementation programs are generally (but not always) adopted as Basin Plan amendments. Priorities and schedules for TMDL development are determined through the Section 303(d) list update process and through the Regional Board’s annual TMDL program workplans. Section 303(d) listing does not necessarily mean that TMDLs (and/or Basin Plan amendments) will be developed for all listed waters; the impairment issues may be addressed in other ways.

Work on Basin Plan amendments to incorporate TMDLs will be supported with state and/or federal TMDL program funds, not basin planning funds. Public comments may be submitted on TMDL issues as part of the Triennial Review process. Responses to these comments will be prepared, and they will be included in the administrative record. However, the Water Board’s action will focus on priorities for use of Basin Planning funds for planning topics other than TMDL development.

### **2009 Triennial Review Planning Topics**

Table 2 summarizes potential priority topics for the 2009 Triennial Review. (These include priorities carried over from previous years, identified by staff, the Water Board and others. They have not yet been discussed by the Water Board as 2009 priorities.)

After reviewing written public comments, staff will prepare final recommendations as part of the Water Board’s agenda packet for the public hearing. Staff will request the Water Board to choose a subset of topics from Table 2 and from any new topics identified in public comments, and to direct staff to investigate these topics over the next three years and develop draft Basin Plan amendments as appropriate.

Schedules for completion of public draft amendments and Water Board action on specific topics will depend upon the complexity of the selected topics. Some of the topics may be worked upon between Fiscal Years 09-10 and 11-12, with Board action on plan amendments after 2012. If important new topics arise before the next Triennial Review, planning priorities may be changed by the Water Board or the Executive Officer. Topics not selected for emphasis in the next three fiscal years will be identified as topics requiring additional funding. Staff will reconsider these topics during the next Triennial Review process and may recommend them as priorities at that time.



**TABLE 2. DRAFT 2009 TRIENNIAL REVIEW PRIORITY LIST FOR THE LAHONTAN REGION**  
**Table 2A.**

**Staff-Recommended Priorities That Could Be Addressed With Projected Resources for FY 09-10 to FY 11-12**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>	<b>Estimated Completion Date</b>
0	Complete Lake Tahoe TMDL and associated amendments to Chapter 5.	Ongoing work that will use TMDL program rather than Basin Planning program resources.		
1	Complete amendments to the water quality objective for pesticides	Ongoing work (in FY 09-10 workplan)	0.4	April to May 2010
2	Complete amendments to plan provisions affecting the shorezone of Lake Tahoe	Ongoing work (in FY 09-10 workplan)	0.6	May 2010
3	Complete Truckee Prohibition/forestry amendments	Ongoing work (in FY 09-10 workplan)	0.5	July 2010

**Table 2A, continued**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>	<b>Estimated Completion Date</b>
4	Complete Chapter 5 amendments to incorporate Tahoe Regional Planning Agency's (TRPA's) new 20-year Regional Plan	Ongoing assistance to TRPA staff to ensure that TRPA Regional Plan is consistent with the Lake Tahoe TMDL. Additional water quality programs and implementation measures will be incorporated into Chapter 5 of the Basin Plan following TRPA's adoption of its Regional Plan.	0.7	Early 2012
5	2009 and 2012 Triennial Review	Resources are needed to develop a draft priority list and related documents, respond to public comments, and prepare agenda materials and administrative records.	0.3	October 2009, October 2012
6	Update of entire Basin Plan	Update of the plan to improve its usability for staff and the public. Revisions could address new and revised State Water Board plans and policies, California Toxics Rule standards, Nonpoint Source Plan, waiver and enforcement provisions, Surface Water Ambient Monitoring Program, Watershed Management Initiative, revised maps, a revised beneficial use table reflecting the CalWater watershed numbering system, etc. Project may include a limited number of regulatory policy changes that would not require scientific peer review.	1.0	Spring 2012

**Table 2A, continued**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>	<b>Estimated Completion Date</b>
7	Miscellaneous work that will not directly result in Basin Plan amendments	Work could include coordination with other states, agencies, tribes and TRPA regarding standards revisions, contract management for plan-related work, staff training, administrative staff updates of electronic plan, coordination with State Water Board Division of Water Rights and water purveyors in Squaw Valley, Placer County regarding ground water management issues, review of nutrient and salt management plans developed by third parties under State Board Recycled Water Policy, etc. (average of 0.2 PY per year over 3 years).	0.6	N/A
8	Revise water quality objectives for Mojave River	Initial effort to gather information from Mojave Water Agency and other entities. Prepare workplan and resource estimate to complete basin plan amendment to revise objectives.	0.2	June 2012
9	Modify waste discharge prohibitions to protect additional prime groundwater recharge areas of arid basins	Initial effort during this Triennial Review cycle. Prepare scope, workplan and resource estimate to complete basin plan amendment.	0.2	June 2012

**Table 2A, continued**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>	<b>Estimated Completion Date</b>
10	Revise bacteria objectives	Initial effort includes managing contract to collect data and compare fecal coliform bacteria levels to E.coli levels in waters of the Lahontan Region. and reviewing proposed State Water Board and USEPA criteria. Basin Plan amendment (post-2013 at the conclusion of a Proposition 84 grant study) will incorporate the State Water Board's bacteria policy when final and consider revisions to the Lahontan Region's bacteria-related objectives.	0.2	
11	Develop groundwater objectives for selected South Lahontan groundwater basins.	Currently the groundwater objectives in the Lahontan Basin Plan apply to all groundwaters, or to categories of groundwaters designated for specific beneficial uses. Development of "site specific" groundwater objectives would require adequate water quality data for the constituents of concern, and aquifer maps to define the areas where objectives would apply. Funding is for an initial effort.	0.2	After 2012.
12	Revise Chapter 3 language on compliance with objectives and "means of monthly means"	Define minimum sample numbers for determining compliance with objectives expressed as annual means. Change the expression of water quality objectives for surface waters in the Truckee, Little Truckee and Carson River watersheds from means of monthly means to annual means.	0.5	After 2012.

**Table 2A, continued**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>	<b>Estimated Completion Date</b>
13	Program Manager (0.1 PY/year)	Program manager participates in State/Regional Board roundtable meetings, aids in workplan development, provides information to the public, etc.	0.3	N/A
	<b>PY TOTAL: TOPICS 1 THROUGH 13</b>	Basin Planning program currently provides 2 PYs per year. If current furlough program continues for one year as specified in the Executive Order (15% cut), only 5.7 PYs will be spent over the three years.	<b>5.7</b>	<b>June 2012</b>

**Table 2B. Priorities That Would Need Additional Resources to be Addressed Between 2010 and 2012**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>
14	Add Cultural Resources beneficial use	This topic could include development of a definition for the use, and designation of specificaters for the use. The definition would recognize the traditional or cultural uses of water and aquatic and wetland ecosystems and resources by indigenous people. Examples include but are not limited to subsistence fishing, basket weaving, and ceremonial or medicinal uses of hot springs. Basin Plan amendments would be developed in cooperation with Native American tribes.	1.0+
15	Outstanding National Resource Water (ONRW) designations for segments of East Fork Carson River, West Walker River and Leavitt Creek.	Federal antidegradation regulations allow states to designate water bodies as ONRWs, where no long-term degradation should be permitted. The three listed waters have been designated as state wild/scenic rivers.	0.5
16	Develop site-specific objectives (SSOs) for salinity and related constituents in Honey Lake and adjacent ponds and wetlands.	SSOs would avoid the need for TMDLs to address six Clean Water Act Section 303(d) listings for high salinity and trace elements in Honey Lake and adjacent waters. Additional monitoring might be necessary to document existing water quality and reference conditions.	1.0
17	Develop SSOs for salinity in Searles Lake.	Develop objectives to reflect the naturally high levels of salt and trace elements in this desert playa lake.	1.0

**Table 2B, continued**

<b>Topic No.</b>	<b>Topic</b>	<b>Description</b>	<b>Resource Needs (PYs)</b>
18	Consider incorporating State Board Numeric Nutrient Endpoint (NNE) methodology.	The NNE methodology provides direction for use of secondary indicators of eutrophication (such as chlorophyll) in development of nutrient standards and TMDL targets. Depending on the outcome of peer review, the State Water Board may ask Regional Water Boards to incorporate the NNE methodology into their Basin Plans.	1.0
	<b>PY TOTAL: TOPICS 14 THROUGH 18</b>		4.5+

**Table 2C. Priorities That Should be Addressed on a Statewide Basis.**

<b>Topic</b>	<b>Description</b>
Address violations of standards due to pollutants from natural sources	Naturally high levels of salt and trace elements such as arsenic occur in certain waters of California. A joint effort by State Water Board staff, staff from all of the Regional Boards, and U.S. Environmental Protection Agency staff has been initiated to identify statewide solutions to avoid the need for Section 303(d) listing and TMDL development for waters where “impairment” is due entirely to natural sources, and to address other natural source issues. Solutions could include “natural sources exclusion” language for statewide policies and/or regional Basin Plans, and a subcategory of the Municipal and Domestic Supply beneficial use that would not apply drinking water Maximum Contaminant Levels to “naturally impaired” ambient waters.
Revise Temperature objectives	This topic was approved as a Lahontan Region priority in the 2006 Triennial Review, in response to comments by the U.S. Environmental Protection Agency. The development of new objectives would be a complex, resource-intensive task that might best be handled on a statewide basis.
Mixing zones	The Basin Plan does not contain allowances for mixing zones below point source discharges. The only applicable provisions are those for toxic pollutants in the State Implementation Policy for California Toxics Rule standards. It would probably be more productive for mixing zone language for non-toxic pollutants to be developed on a statewide basis than for Regional Boards to adopt separate Basin Plan amendments and have them invalidated due to a desire for statewide consistency.



**Table 2C, continued**

<b>Topic</b>	<b>Description</b>
Turbidity objectives	The U.S. Geological Survey has recently begun measuring turbidity using new equipment and new units (NTRU rather than NTU) that are not directly comparable with existing objectives. There is a growing scientific literature on turbidity criteria for protection of aquatic life uses. Under the State Water Board's Section 303(d) Listing Policy, waters with small numbers of violations of the turbidity Maximum Contaminant Level (5 NTU) may need to be listed, even if the violations are due to natural conditions. The development of new objectives would be a complex, resource-intensive task that might best be handled on a statewide basis.
Bio-objectives	The State Water Board is developing statewide "bio-objective" language based on the health of benthic macroinvertebrate communities. Both a narrative objective and an implementation plan will be adopted. The implementation plan will provide direction to Regional Water Boards for the development of numeric biocriteria. The process is expected to take 4-5 years.